ISMOR 33 – the current state of O.R. applied to military problems

The Defence SIG co-sponsors another successful international symposium

By Noel Corrigan, CORDA (UK)

As has become traditional, the International Symposium of Military Operational Research (ISMOR) gathered in the third week of July at Royal Holloway College. We were there for a four day binge of military O.R. examining current challenges in the defence and security environment.

ISMOR is the annual symposium sponsored by the UK Ministry of Defence. Its purpose is to foster excellence in analysis and its application to defence and security through providing a forum for staff in government departments and agencies, international organisations, academia and industry. The Defence Special Interest Group and the US Military Operations Research Society both provide strong support.

100 delegates from 14 nations were treated to 30 papers, with a similar number of posters, workshops and tutorials, including some less formal (but no less stimulating) evening lectures in the bar. This year, the Keynote speech to start the conference was delivered by Jonathan Nancekivell-Smith, the current Director of Performance and Analysis at the UK Ministry of Defence. He stressed that while it is important for analysts to generate robust evidence, it is equally important to "maintain the narrative" – to articulate that evidence in a meaningful and easily digestible way to the decision makers. He had some good examples of pointless graphics.

Tony Sinden delivered the Ronnie Shepherd Memorial Address after the sumptuous conference banquet (delicious duck) on Thursday evening. Tony is an old friend of ISMOR, formerly very senior in the MOD. His theme was lessons learned from a career in OR, including not choosing and not doing the obvious.

The prize for the best paper of the proceedings went to Shay Liraz of the Israeli Defence Force for his clear description of how he had used recent operational data to determine the effects of different types of warhead in urban environments. His work has been used to improve combat practices, minimising collateral damage. The best paper from an early career analyst was won by Ben Ludford of CORDA. He described an optimisation tool developed by BAE Systems that allows rapid optimisation of a force structure within cost constraints that can be used to inform investment decisions.

A personal highlight was the session on active listening by Dr Deborah Goodwin of the Royal Military Academy at Sandhurst. "Why poor listening damages us professionally, and what we can do about it" covered the seven tenets of good listening, with examples from both personal and professional life. She highlighted how these skills are vital to negotiators, with a chilling example of how not to do it from a real hostage situation.

One of the more unusual presentations was on the ability of the human body to withstand blast injury. These were approximated to falling from various heights, and it seems that falling from less than 5m is unlikely to kill you, but falling from over 13m is quite dangerous and to be discouraged – particularly if you land in the wrong way.

On a more optimistic note, the greatest height from which someone has fallen and survived was from a Lancaster bomber at cruising height. The "victim" would have reached terminal velocity during the free fall, but survived with only a broken arm.

At the close, the event Chair Peter Starkey announced that, after four years of organising ISMOR, he has decided to stand down. Peter has led the resurrection of the four day, self-funding, non-profit making event, which this year, boasted more delegates and more papers than many years previously. Peter will be a hard act to follow, and the Military O.R. community owes him a great gratitude.